

Attorney's Docket No.: 42390P9878

PATENT

**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**  
**(FOR INTEL CORPORATION PATENT APPLICATIONS)**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**A Mechanism For Efficiently Supporting The Full MESI (Modified, Exclusive, Shared, Invalid) Protocol In A Cache Coherent Multi-Node Shared Memory System**

the specification of which

\_\_\_\_\_ is attached hereto.  
X was filed on December 29, 2000 as  
United States Application Number 09/752,534  
or PCT International Application Number \_\_\_\_\_  
and was amended on (MM/DD/YYYY) \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d), of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Docket No.: 42390P9878  
Application No.: 09/752,534

**RECEIVED**  
**NOV 20 2002**  
**OFFICE OF PETITIONS**

Prior Foreign Application(s)

Priority  
Claimed

<u>(Number)</u>	<u>(Country)</u>	<u>(Foreign Filing Date)</u>	<u>Yes</u>	<u>No</u>
<u>(Number)</u>	<u>(Country)</u>	<u>(Foreign Filing Date)</u>	<u>Yes</u>	<u>No</u>
<u>(Number)</u>	<u>(Country)</u>	<u>(Foreign Filing Date)</u>	<u>Yes</u>	<u>No</u>

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

<u>Application Number</u>	<u>(Filing Date)</u>
<u>Application Number</u>	<u>(Filing Date)</u>

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

<u>Application Number</u>	<u>(Filing Date)</u>	<u>Status -- patented, pending, abandoned</u>
<u>Application Number</u>	<u>(Filing Date)</u>	<u>Status -- patented, pending, abandoned</u>

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Send correspondence to Libby H. Hope, BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, 12400 Wilshire Boulevard 7th Floor, Los Angeles, California 90025 and direct telephone calls to Libby H. Hope, (303) 740-1980.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole/First Inventor Manoj Khare  
Inventor's Signature Manoj Khare Date 10/8/02  
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(City, State) (Country)  
Post Office Address 12650 Orella Court  
Saratoga, California 95070

Full Name of Second/Joint Inventor Lily P. Looi  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Portland, Oregon Citizenship U.S.A.  
(City, State) (Country)  
Post Office Address 15134 NW Mitchell Street  
Portland, Oregon 97229

Full Name of Third /Joint Inventor Akhilesh Kumar  
Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence Sunnyvale, California Citizenship India  
(City, State) (Country)  
Post Office Address 1256 Rembrandt Drive  
Sunnyvale, California 94087

Docket No.: 42390P9878  
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Full Name of Fourth/Joint Inventor Faye A. Briggs

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Portland, Oregon Citizenship U.S.A.  
(City, State) (Country)

Post Office Address 1230 NW Frazier Court  
Portland, Oregon 97229

APPENDIX A

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. 42,261; Peggy S. Avalos, Reg. No. 42,274; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Lisa N. Benado, Reg. No. 39,995; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; R. Alan Burnett, Reg. No. 46,149; Gregory D. Caldwell, Reg. No. 39,926; Jae-Hee Choi, Reg. No. 45,288; Thomas M. Coester, Reg. No. 39,637; Robert P. Cogan, Reg. No. 25,049; Donna Jo Coningsby, Reg. No. 41,684; Florin Corie, Reg. No. 46,244; Mimi Diemmy Dao, Reg. No. 45,628; Dennis M. deGuzman, Reg. No. 41,702; Stephen M. De Klerk, Reg. No. 46,503; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Justin M. Dillon, Reg. No. 42,486; Sanjeet Dutta, Reg. No. 46,145; Matthew C. Fagan, Reg. No. 37,542; Tarek N. Fahmi, Reg. No. 41,402; Thomas S. Ferrill, Reg. No. 42,532; George Fountain, Reg. No. 37,374; Andre Gibbs, Reg. No. 47,593; James Y. Go, Reg. No. 40,621; Alan Heimlich, Reg. No. P48,808; James A. Henry, Reg. No. 41,064; Libby H. Hope, Reg. No. 46,774; Willmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; William W. Kidd, Reg. No. 31,772; Sang Hui Kim, Reg. No. 40,450; Walter T. Kim, Reg. No. 42,731; Eric T. King, Reg. No. 44,188; Steve Laut, Reg. No. 47,736; George Brian Leavell, Reg. No. 45,436; Samuel S. Lee, Reg. No. 42,791; Gordon R. Lindeen III, Reg. No. 33,192; Jan Carol Little, Reg. No. 41,181; Julio Loza, Reg. No. 47,758; Joseph Lutz, Reg. No. 43,765; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, Reg. No. 48,095; Paul A. Mendonsa, Reg. No. 42,879; Clive D. Menezes, Reg. No. 45,493; Richard A. Nakashima, Reg. No. 42,023; Stephen Neal, Reg. No. 47,815; Chun M. Ng, Reg. No. 36,878; Thien T. Nguyen, Reg. No. 43,835; Tinh V. Nguyen, Reg. No. 42,034; Robert B. O'Rourke, Reg. No. 46,972; Daniel E. Ovanezian, Reg. No. 41,236; Kenneth B. Paley, Reg. No. 38,989; Gregg A. Peacock, Reg. No. 45,001; Marina Portnova, Reg. No. 45,750; Michael A. Proksch, Reg. No. 43,021; Randol W. Read, Reg. No. 43,876; William F. Ryann, Reg. No. 44,313; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Jeffrey S. Schubert, Reg. No. 43,098; George Simion, Reg. No. P47,089; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Ronald S. Tamura, Reg. No. 43,179; Edwin H. Taylor, Reg. No. 25,129; Lance A. Termes, Reg. No. 43,184; John F. Travis, Reg. No. 43,203; Kerry P. Tweet, Reg. No. 45,959; Mark C. Van Ness, Reg. No. 39,865; Tom Van Zandt, Reg. No. 43,219; Lester J. Vincent, Reg. No. 31,460; Archana B. Vittal, Reg. No. 45,182; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Mark L. Watson, Reg. No. 46,322; Thomas C. Webster, Reg. No. 46,154; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and Firasat Ali, Reg. No. 45,715; Charles P. Landrum, Reg. No. 46,855; Suk S. Lee, Reg. No. 47,745; and Raul Martinez, Reg. No. 46,904; Brent E. Vecchia, Reg. No. 48,011; Lehua Wang, Reg. No. P48,023; my patent agents, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and Alan K. Aldous, Reg. No. 31,905; Ben Burge, Reg. No. 42,372; Robert A. Burtzlaff, Reg. No. 35,466; Richard C. Calderwood, Reg. No. 35,468; Jeffrey S. Draeger, Reg. No. 41,000; Cynthia Thomas Faatz, Reg. No. 39,973; Jeffrey B. Huter, Reg. No. 41,086; John Kacvinsky, Reg. No. 40,040; Seth Z. Kalson, Reg. No. 40,670; David J. Kaplan, Reg. No. 41,105; Peter Lam, Reg. No. 44,855; Charles A. Mirho, Reg. No. 41,199; Paul Nagy, Reg. No. 37,896; Leo V. Novakoski, Reg. No. 37,198; Thomas C. Reynolds, Reg. No. 32,488; Kenneth M. Seddon, Reg. No. 43,105; Mark Seeley, Reg. No. 32,299; Steven P. Skabrat, Reg. No. 36,279; Howard A. Skaist, Reg. No. 36,008; Robert G. Winkle, Reg. No. 37,474; Sharon Wong, Reg. No. 37,760; Steven D. Yates, Reg. No. 42,242; Calvin E. Wells, Reg. No. 43,256 and Charles K. Young, Reg. No. 39,435; my patent attorneys, and my patent agents, of INTEL CORPORATION, with offices located at 2200 Mission College Blvd., Santa Clara, CA 95052, telephone (408) 765-8080; with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

## APPENDIX B

### Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) Prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application;

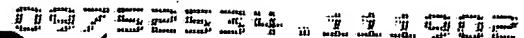
(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

(e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT

international filing date of the continuation-in-part application.



**PATENT**

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**(FOR INTEL CORPORATION PATENT APPLICATIONS)**

**As a below named inventor, I hereby declare that:**

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

# A Mechanism For Efficiently Supporting The Full MESI (Modified, Exclusive, Shared, Invalid) Protocol In A Cache Coherent Multi-Node Shared Memory System

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I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

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Docket No.: 42390P9878  
Application No.: 09/752,534

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OFFICE OF PETITIONS



Prior Foreign Application(s)

Priority  
Claimed

_____ (Number)	_____ (Country)	_____ (Foreign Filing Date)	<u>Yes</u>	<u>No</u>
_____ (Number)	_____ (Country)	_____ (Foreign Filing Date)	<u>Yes</u>	<u>No</u>
_____ (Number)	_____ (Country)	_____ (Foreign Filing Date)	<u>Yes</u>	<u>No</u>

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

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_____ Application Number	_____ (Filing Date)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

_____ Application Number	_____ (Filing Date)	_____ Status -- patented, pending, abandoned
_____ Application Number	_____ (Filing Date)	_____ Status -- patented, pending, abandoned

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Send correspondence to Mark J. Fink, BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, 12400 Wilshire Boulevard 7th Floor, Los Angeles, California 90025 and direct telephone calls to Mark J. Fink, (303) 740-1980.

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Full Name of Sole/First Inventor Manoj Khare

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

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(City, State) (Country)

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Saratoga, California 95070

Full Name of Second/Joint Inventor Lily P. Looi

Inventor's Signature Lily Poo Looi Date 4/30/01

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(City, State) (Country)

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Portland, Oregon 97229


Full Name of Third /Joint Inventor Akhilesh Kumar

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

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Sunnyvale, California 94087

Full Name of Fourth/Joint Inventor Faye A. Briggs

Inventor's Signature  Date \_\_\_\_\_

Residence Portland, Oregon Citizenship U.S.A.  
(City, State) (Country)

Post Office Address 1230 NW Frazier Court  
Portland, Oregon 97229

## APPENDIX A

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. 42,261; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Lisa N. Benado, Reg. No. 39,995; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; R. Alan Burnett, Reg. No. 46,149; Gregory D. Caldwell, Reg. No. 39,926; Andrew C. Chen, Reg. No. 43,544; Thomas M. Coester, Reg. No. 39,637; Donna Jo Coningsby, Reg. No. 41,684; Florin Corie, Reg. No. 46,244; Dennis M. deGuzman, Reg. No. 41,702; Stephen M. De Klerk, Reg. No. 46,503; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Sanjeet Dutta, Reg. No. 46,145; Matthew C. Fagan, Reg. No. 37,542; Tarek N. Fahmi, Reg. No. 41,402; George Fountain, Reg. No. 37,374; James Y. Go, Reg. No. 40,621; James A. Henry, Reg. No. 41,064; Libby N. Ho, Reg. No. 46,774; Willmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; William W. Kidd, Reg. No. 31,772; Sang Hui Kim, Reg. No. 40,450; Walter T. Kim, Reg. No. 42,731; Eric T. King, Reg. No. 44,188; George Brian Leavell, Reg. No. 45,436; Gordon R. Lindeen III, Reg. No. 33,192; Jan Carol Little, Reg. No. 41,181; Robert G. Litts, Reg. No. 46,876; Joseph Lutz, Reg. No. 43,765; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, under 37 C.F.R. § 10.9(b); Paul A. Mendonsa, Reg. No. 42,879; Clive D. Menezes, Reg. No. 45,493; Chun M. Ng, Reg. No. 36,878; Thien T. Nguyen, Reg. No. 43,835; Tinh V. Nguyen, Reg. No. 42,034; Dennis A. Nicholls, Reg. No. 42,036; Robert B. O'Rourke, Reg. No. 46,972; Daniel E. Ovanezian, Reg. No. 41,236; Kenneth B. Paley, Reg. No. 38,989; Gregg A. Peacock, Reg. No. 45,001; Marina Portnova, Reg. No. 45,750; William F. Ryann, Reg. No. 44,313; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Jeffrey Sam Smith, Reg. No. 39,377; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Vincent P. Tassinari, Reg. No. 42,179; Edwin H. Taylor, Reg. No. 25,129; John F. Travis, Reg. No. 43,203; Joseph A. Twarowski, Reg. No. 42,191; Mark C. Van Ness, Reg. No. 39,865; Tom Van Zandt, Reg. No. 43,219; Lester J. Vincent, Reg. No. 31,460; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Brent E. Vecchia, Reg. No. P48, 011; Mark L. Watson, Reg. No. 46,322; Thomas C. Webster, Reg. No. 46,154; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and Firasat Ali, Reg. No. 45,715; Justin M. Dillon, Reg. No. 42,486; Thomas S. Ferrill, Reg. No. 42,532; and Raul Martinez, Reg. No. 46,904, my patent agents, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and Alan K. Aldous, Reg. No. 31,905; Edward R. Brake, Reg. No. 37,784; Ben Burge, Reg. No. 42,372; Jeffrey S. Draeger, Reg. No. 41,000; Cynthia Thomas Faatz, Reg. No. 39,973; John N. Greaves, Reg. No. 40,362; Seth Z. Kalson, Reg. No. 40,670; David J. Kaplan, Reg. No. 41,105; Peter Lam, Reg. No. 44,855; Charles A. Mirho, Reg. No. 41,199; Leo V. Novakoski, Reg. No. 37,198; Thomas C. Reynolds, Reg. No. 32,488; Kenneth M. Seddon, Reg. No. 43,105; Mark Seeley, Reg. No. 32,299; Steven P. Skabrat, Reg. No. 36,279; Howard A. Skaist, Reg. No. 36,008; Gene I. Su, Reg. No. 45,140; Calvin E. Wells, Reg. No. P43, 256; Raymond J. Werner, Reg. No. 34,752; Robert G. Winkle, Reg. No. 37,474; Steven D. Yates, Reg. No. 42,242; and Charles K. Young, Reg. No. 39,435; my patent attorneys, of INTEL CORPORATION; and James R. Thein, Reg. No. 31,710, my patent attorney with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

## APPENDIX B

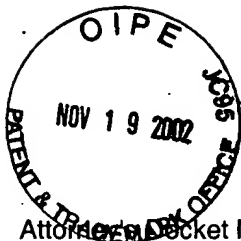
### Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

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- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
- (1) Each inventor named in the application;
  - (2) Each attorney or agent who prepares or prosecutes the application; and
  - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



Attorney Docket No.: 42390P9878

PATENT

**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**  
**(FOR INTEL CORPORATION PATENT APPLICATIONS)**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below, next to my name.

I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**A Mechanism For Efficiently Supporting The Full MESI (Modified, Exclusive, Shared, Invalid) Protocol In A Cache Coherent Multi-Node Shared Memory System**

the specification of which

\_\_\_\_\_ is attached hereto.  
X was filed on December 29, 2000 as  
United States Application Number 09/752,534  
or PCT International Application Number \_\_\_\_\_  
and was amended on (MM/DD/YYYY) \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d), of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Docket No.: 42390P9878  
Application No.: 09/752,534

**RECEIVED**

**NOV 20 2002**

**OFFICE OF PETITIONS**

Prior Foreign Application(s)

Priority  
Claimed

_____ (Number)	_____ (Country)	_____ (Foreign Filing Date)	_____ Yes	_____ No
_____ (Number)	_____ (Country)	_____ (Foreign Filing Date)	_____ Yes	_____ No
_____ (Number)	_____ (Country)	_____ (Foreign Filing Date)	_____ Yes	_____ No

I hereby claim the benefit under Title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

_____ Application Number	_____ (Filing Date)
_____ Application Number	_____ (Filing Date)

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

_____ Application Number	_____ (Filing Date)	_____ Status -- patented, pending, abandoned
_____ Application Number	_____ (Filing Date)	_____ Status -- patented, pending, abandoned

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Send correspondence to Libby H. Hope, BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, 12400 Wilshire Boulevard 7th Floor, Los Angeles, California 90025 and direct telephone calls to Libby H. Hope, (303) 740-1980.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole/First Inventor Manoj Khare

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Saratoga, California Citizenship India  
(City, State) (Country)

Post Office Address 12650 Orella Court  
Saratoga, California 95070

Full Name of Second/Joint Inventor Lily P. Looi

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Portland, Oregon Citizenship U.S.A.  
(City, State) (Country)

Post Office Address 15134 NW Mitchell Street  
Portland, Oregon 97229

Full Name of Third /Joint Inventor Akhilesh Kumar

Inventor's Signature Akhilesh Kumar Date 10/25/2002

Residence Sunnyvale, California Citizenship India  
(City, State) (Country)

Post Office Address 1256 Rembrandt Drive  
Sunnyvale, California 94087

Docket No.: 42390P9878  
Application No.: 09/752,534



Full Name of Fourth/Joint Inventor Faye A. Briggs

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence Portland, Oregon Citizenship U.S.A.  
(City, State) (Country)

Post Office Address 1230 NW Frazier Court  
Portland, Oregon 97229

## APPENDIX A

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. 42,261; Peggy S. Avalos, Reg. No. 42,274; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Lisa N. Benado, Reg. No. 39,995; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; R. Alan Burnett, Reg. No. 46,149; Gregory D. Caldwell, Reg. No. 39,926; Jae-Hee Choi, Reg. No. 45,288; Thomas M. Coester, Reg. No. 39,637; Robert P. Cogan, Reg. No. 25,049; Donna Jo Coningsby, Reg. No. 41,684; Florin Corie, Reg. No. 46,244; Mimi Diemmy Dao, Reg. No. 45,628; Dennis M. deGuzman, Reg. No. 41,702; Stephen M. De Klerk, Reg. No. 46,503; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Justin M. Dillon, Reg. No. 42,486; Sanjeet Dutta, Reg. No. 46,145; Matthew C. Fagan, Reg. No. 37,542; Tarek N. Fahmi, Reg. No. 41,402; Thomas S. Ferrill, Reg. No. 42,532; George Fountain, Reg. No. 37,374; Andre Gibbs, Reg. No. 47,593; James Y. Go, Reg. No. 40,621; Alan Heimlich, Reg. No. P48,808; James A. Henry, Reg. No. 41,064; Libby H. Hope, Reg. No. 46,774; Willmore F. Holbrow III, Reg. No. 41,845; Sheryl Sue Holloway, Reg. No. 37,850; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; William W. Kidd, Reg. No. 31,772; Sang Hui Kim, Reg. No. 40,450; Walter T. Kim, Reg. No. 42,731; Eric T. King, Reg. No. 44,188; Steve Laut, Reg. No. 47,736; George Brian Leavell, Reg. No. 45,436; Samuel S. Lee, Reg. No. 42,791; Gordon R. Lindeen III, Reg. No. 33,192; Jan Carol Little, Reg. No. 41,181; Julio Loza, Reg. No. 47,758; Joseph Lutz, Reg. No. 43,765; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, Reg. No. 48,095; Paul A. Mendonsa, Reg. No. 42,879; Clive D. Menezes, Reg. No. 45,493; Richard A. Nakashima, Reg. No. 42,023; Stephen Neal, Reg. No. 47,815; Chun M. Ng, Reg. No. 36,878; Thien T. Nguyen, Reg. No. 43,835; Thinh V. Nguyen, Reg. No. 42,034; Robert B. O'Rourke, Reg. No. 46,972; Daniel E. Ovanezian, Reg. No. 41,236; Kenneth B. Paley, Reg. No. 38,989; Gregg A. Peacock, Reg. No. 45,001; Marina Portnova, Reg. No. 45,750; Michael A. Proksch, Reg. No. 43,021; Randol W. Read, Reg. No. 43,876; William F. Ryann, Reg. No. 44,313; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Jeffrey S. Schubert, Reg. No. 43,098; George Simion, Reg. No. P47,089; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Ronald S. Tamura, Reg. No. 43,179; Edwin H. Taylor, Reg. No. 25,129; Lance A. Termes, Reg. No. 43,184; John F. Travis, Reg. No. 43,203; Kerry P. Tweet, Reg. No. 45,959; Mark C. Van Ness, Reg. No. 39,865; Tom Van Zandt, Reg. No. 43,219; Lester J. Vincent, Reg. No. 31,460; Archana B. Vittal, Reg. No. 45,182; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Mark L. Watson, Reg. No. 46,322; Thomas C. Webster, Reg. No. 46,154; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and Firasat Ali, Reg. No. 45,715; Charles P. Landrum, Reg. No. 46,855; Suk S. Lee, Reg. No. 47,745; and Raul Martinez, Reg. No. 46,904; Brent E. Vecchia, Reg. No. 48,011; Lehua Wang, Reg. No. P48,023; my patent agents, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and Alan K. Aldous, Reg. No. 31,905; Ben Burge, Reg. No. 42,372; Robert A. Burtzlaff, Reg. No. 35,466; Richard C. Calderwood, Reg. No. 35,468; Jeffrey S. Draeger, Reg. No. 41,000; Cynthia Thomas Faatz, Reg. No. 39,973; Jeffrey B. Huter, Reg. No. 41,086; John Kacvinsky, Reg. No. 40,040; Seth Z. Kalson, Reg. No. 40,670; David J. Kaplan, Reg. No. 41,105; Peter Lam, Reg. No. 44,855; Charles A. Mirho, Reg. No. 41,199; Paul Nagy, Reg. No. 37,896; Leo V. Novakoski, Reg. No. 37,198; Thomas C. Reynolds, Reg. No. 32,488; Kenneth M. Seddon, Reg. No. 43,105; Mark Seeley, Reg. No. 32,299; Steven P. Skabrat, Reg. No. 36,279; Howard A. Skaist, Reg. No. 36,008; Robert G. Winkle, Reg. No. 37,474; Sharon Wong, Reg. No. 37,760; Steven D. Yates, Reg. No. 42,242; Calvin E. Wells, Reg. No. 43,256 and Charles K. Young, Reg. No. 39,435; my patent attorneys, and my patent agents, of INTEL CORPORATION, with offices located at 2200 Mission College Blvd., Santa Clara, CA 95052, telephone (408) 765-8080; with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

## APPENDIX B

### Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) Prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application;

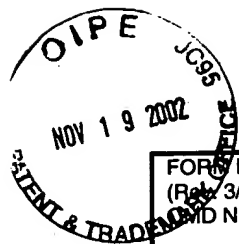
(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

(e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT

international filing date of the continuation-in-part application.



FORM PTO-1595  
(Rev. 3/01)  
P.D. NO. 0651-0011 exp. 5/31/2002

# Recordation Form Cover Sheet PATENTS ONLY

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): **Manoj Khare;  
Lily P. Looi; Akhilesh Kumar; Faye A. Briggs**

Additional name(s) of conveying party(ies) attached?  
☒ No ☐ Yes

3. Nature of Conveyance

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other:

Execution Date(s): 4/30/01, 10/8/02, 10/25/02

2. Name and address of receiving party(ies)

Name: INTEL CORPORATION

Internal Address: \_\_\_\_\_

Street Address: 2200 Mission College Blvd.

City: Santa Clara State/Province: CA Zip: 95052

Country: USA

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application Number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s): 09/752,534

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Blakely, Sokoloff, Taylor & Zafman LLP

Internal Address: \_\_\_\_\_

Street Address: 12400 Wilshire Boulevard, 7<sup>th</sup> Floor

City: Los Angeles State: California Zip: 90025

6. Total number of applications and patents involved: 1

7. Total Fee (37 CFR 3.41).....\$40.00

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit Account Number:

02-2666

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

*To the best of my knowledge and believe, the foregoing is true and correct and any attached copy is a true copy of the original document*

Libby H. Hope 46, 774

Name of Person Signing

  
Signature

November 11, 2002

Date

Total number of pages including cover sheet, attachments, and document: 7

Mail documents to be recorded with required cover sheet information to:  
Assistant Commissioner of Patents, Box Assignments  
Washington, D.C. 20231

Atty Docket No.: 42390P9878

Application No.: 09/752,534

11/20/2002 AWONDAF1 00000101 09752534

03 FC:8021

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NOV 20 2002

OFFICE OF PETITIONS

**ASSIGNMENT**  
(For Execution After Filing Patent Application)

COPY

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we the undersigned:

**Manoj Khare; Lily P. Looi; Akhilesh Kumar; Faye A. Briggs**  
hereby sell, assign, and transfer to

**Intel Corporation**

a corporation of California, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95052, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that was filed December 29, 2000 and assigned Application No. 09/752,534 and is entitled:

**A Mechanism For Efficiently Supporting the Full MESI (Modified, Exclusive, Shared, Invalid) Protocol In A Cache Coherent Multi-Node Shared Memory System**

and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Date: \_\_\_\_\_, 2001

Name: **Manoj Khare**

Date: April 30, 2001

Name: **Lily P. Looi**

Date: \_\_\_\_\_, 2001

Name: **Akhilesh Kumar**

Date: \_\_\_\_\_, 2001

Name: **Faye A. Briggs**

State of: \_\_\_\_\_}

} SS.

County of: \_\_\_\_\_}

Assignment Document Return Address:

**BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP**  
12400 Wilshire Blvd., Seventh Floor  
Los Angeles, California 90025-1026  
(303) 740-1980

On this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_, before me, \_\_\_\_\_,  
the undersigned Notary Public, personally appeared \_\_\_\_\_

☐ personally known to me ☐ proved to me on the basis of satisfactory evidence to be the person(s)  
whose name(s) subscribed to the within instrument, and acknowledged that \_\_\_\_\_ executed it.  
WITNESS my hand and official seal.

\_\_\_\_\_  
Notary's Signature

COPY

**ASSIGNMENT**  
(For Execution After Filing Patent Application)

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we the undersigned:

**Manoj Khare; Lily P. Looi; Akhilesh Kumar; Faye A. Briggs**

hereby sell, assign, and transfer to

**Intel Corporation**

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95052, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that was filed December 29, 2000 and assigned Application No. 09/752,534 and is entitled:

**A Mechanism For Efficiently Supporting the Full MESI (Modified, Exclusive, Shared, Invalid) Protocol In A Cache Coherent Multi-Node Shared Memory System**

and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.



Date: 10/8/02, 2001

Manoj Khare  
Name: **Manoj Khare**

Date: \_\_\_\_\_, 2001

\_\_\_\_\_  
Name: **Lily P. Looi**

Date: \_\_\_\_\_, 2001

\_\_\_\_\_  
Name: **Akhilesh Kumar**

Date: \_\_\_\_\_, 2001

\_\_\_\_\_  
Name: **Faye A. Briggs**

State of: \_\_\_\_\_ }

County of: \_\_\_\_\_ }

} SS. Assignment Document Return Address:  
**BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP**  
12400 Wilshire Blvd., Seventh Floor  
Los Angeles, California 90025-1026  
(303) 740-1980

On this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_, before me, \_\_\_\_\_,  
the undersigned Notary Public, personally appeared \_\_\_\_\_

☐ personally known to me ☐ proved to me on the basis of satisfactory evidence to be the person(s)  
whose name(s) subscribed to the within instrument, and acknowledged that \_\_\_\_\_ executed it.  
WITNESS my hand and official seal.

\_\_\_\_\_  
Notary's Signature

COPY

**ASSIGNMENT**  
(For Execution After Filing Patent Application)

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we the undersigned:

**Manoj Khare; Lily P. Looi; Akhilesh Kumar; Faye A. Briggs**

hereby sell, assign, and transfer to

**Intel Corporation**

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95052, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that was filed December 29, 2000 and assigned Application No. 09/752,534 and is entitled:

**A Mechanism For Efficiently Supporting the Full MESI (Modified, Exclusive, Shared, Invalid) Protocol In A Cache Coherent Multi-Node Shared Memory System**


and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Date: \_\_\_\_\_, 2001      Name: **Manoj Khare**

Date: \_\_\_\_\_, 2001      Name: **Lily P. Looi**

Date: 10/25/2002, ~~2001~~        
Name: **Akhilesh Kumar**

Date: \_\_\_\_\_, 2001      Name: **Faye A. Briggs**

State of: \_\_\_\_\_ }      Assignment Document Return Address:  
County of: \_\_\_\_\_ } SS. **BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP**  
12400 Wilshire Blvd., Seventh Floor  
Los Angeles, California 90025-1026  
(303) 740-1980

On this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_, before me, \_\_\_\_\_,  
the undersigned Notary Public, personally appeared \_\_\_\_\_

☐ personally known to me ☐ proved to me on the basis of satisfactory evidence to be the person(s)  
whose name(s) subscribed to the within instrument, and acknowledged that \_\_\_\_\_ executed it.  
WITNESS my hand and official seal.

\_\_\_\_\_  
Notary's Signature